

# BALLISTIC FISHING LURE WITH PONTOONS

## DESCRIPTION

**[Para 1]** Technical Field

**[Para 2]** This invention relates to a fishing lures, and more particularly a fishing lure having a fish-attractive jumping lure motion.

**[Para 3]** Background Art

**[Para 4]** An almost infinite variety of styles and types of fishing lures are available. It has not been known, however, to provide a fishing lure that provides a jumping motion to simulate the motion of bait.

**[Para 5]** Summary of The Invention

**[Para 6]** The present invention provides structure for using the drag of the lure through the water and a reversal of flow direction within the lure to provide a jumping motion.

**[Para 7]** Brief Description of the Drawings

**[Para 8]** A more complete understanding of the invention and its advantages will be apparent from the Detailed Description taken in conjunction with the accompanying Drawings, in which:

**[Para 9]** Figure 1 is a perspective view of a fishing lure constructed in accordance with the invention;

**[Para 10]** Figure 2 is an end view of the fishing lure;

**[Para 11]** Figure 3 is a partially broken away side view of the fishing lure; and

**[Para 12]** Figure 4 is a partially broken away top view of the fishing lure.

**[Para 13]** Detailed Description of the Preferred Embodiment

**[Para 14]** Referring initially to Figures 1-4, where like numerals indicate like and corresponding elements, a lure 10 includes a main body member 12 formed from thin, resilient film 14. The main body member 12 has fore and aft ends 16,18 and upwardly-open, U-shaped, longitudinal cross-sections as best shown in Figure 2. The main body member 12 tapers to smaller dimensions both vertically and horizontally from the fore to aft ends 16,18, with the vertical taper best shown in Figure 3 and the horizontal taper best shown in Figure 2. The main body member 12 has an open mouth 20 at the fore end 16 and an open exit 22 at the aft end 18. The exit 22 has opposed vertical exterior side walls 24,26 joined by a curved exterior bottom wall 28 and back wall 29.

**[Para 15]** A forwardly-open cap 30 extends upwardly from the exit 22 of the main body member 12. The cap 30 has opposed lower interior side walls 32,34 sealingly joined to the vertical exterior side walls 24,26 of the exit 22. The cap 30 has a curved interior bottom wall 36 sealingly joined to the curved exterior bottom wall 28 of the exit 22, and an aft vertical interior wall 40 sealingly joined to back wall 29.

**[Para 16]** The cap 30 further has a curved upper interior wall 42 joined to a top of the aft vertical wall 40, such that water entering the open mouth 20 of the main body member 12 is routed aftwardly to the exit 22, then upwardly along the cap vertical wall 40, and then forwardly along the curved upper interior wall 42 to an open exit 44 of the cap 30 located above the main body member exit 22.

**[Para 17]** Two rectangular block-shaped flotation pontoons 46,48 are provided. Each pontoon 46,48 spans essentially all of one of two opposing exterior side walls 50,52 of the main body member 12, as best shown in Figure 4. The horizontal taper of main body member 12, and the forward position of slider tube 60 and weight 70, are selected to position the fore end 16 of the main body member 12 below the water line and the aft end 18 of the main body member 12 above the water line, when the lure 10 is in water at rest.

**[Para 18]** A spring anchor rod 53 is fixed to and spans the flotation pontoons 46,48 in the aft end 18 of the main body member 12. A guide ring support 54 is fixed to and spans the interior side walls 55,56, of the main body member 12 at the mouth 20. A guide ring 58 depends from the guide ring support 54. A slider tube 60 is interfitted with the guide ring 58 for relative translating motion with respect to the main body member 12 within the guide ring 58. A spring post 62 extends through a forward end 64 of the slider tube (Figure 3). A cylindrical coil spring 66 is substantially entirely within the slider tube 60, the spring 66 extending between a forward end engaged with the spring post 62 and an aft end engaged with the spring anchor rod 53.

**[Para 19]** A suitable eye 68, weight 70 and hook 72 are provided as shown in Figure 3, with the spring post 62 being fixed to the weight 70. Line 74 is connected to eye 68 and extends to a fisherman (not shown).

**[Para 20]** The length and spring rate of the coil spring 66 is selected such that when the lure 10 is pulled through water, with the main body member 12 and cap 30 creating drag and circulating water through the main body member 12 and the cap 30, the slider tube 60 translates with respect to the main body member 12 thereby elongating the coil spring 66 to create tension opposing the drag. When tension on the lure 10 is released, the slider tube 60 is translated under spring tension back to the spring anchor rod 53, thereby creating a fish-attractive, jumping lure motion.

**[Para 21]** In addition, preferably film 14 and pontoons 46,48 are printed with a bait pattern, such as a shrimp or a bait fish pattern, although various colors and even transparent films/pontoons may be usable. The balance and corresponding attitude of

the lure may be adjusted by the adjustment of the weights of the various elements and careful selection of the weight of the hook.

**[Para 22]** In operation, the lure is hollow with a plastic film exterior. The film thickness is selected to emulate the firmness of the creature depicted on the film, where the film is printed. Flotation pontoons 46,48 position the main body member 12 such that the water line is approximately midway between the fore and aft ends of the main body member when the lure is at rest. When the lure is pulled, water is forced back into the main body member and is redirected 180° by the cap 30.

Simultaneously, the slider tube 60 translates forwardly against the pressure of spring 66. When the pulling action on line 74 ceases, the spring pulls the slider tube back to spring anchor rod, sending the lure out of the water in a ballistic, jumping fashion.

**[Para 23]** Whereas, the present invention has been described with respect to a specific embodiment thereof, it will be understood that various changes and modifications will be suggested to one skilled in the art, and it is intended to encompass such changes and modifications as fall within the scope of the appended claims.